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# THE CLASSIFICATION OF AMERICAN AEDES

*(Diptera, Culicidæ)*

By HARRISON G. DYAR

Recently (Ins. Ins. Mens., vi, 75, 1918), I gave a table of American *Aëdes,* dividing the genus into groups on the characters of the male hypopygium. These groups may properly be called subgenera, and with recent changes in nomenclature, stand as follows:

1. Claspette developed, with filamentous seta and columnar base.....2
   Claspette rudimentary, a short seta from a conical base,
   *Howardina* Theobald
   Claspette absent.....3
2. Side-piece with apical and basal lobes,
   *Heteronycha* Lynch Arribalzaga
   Side-piece with basal lobe, no apical one,
   *Taeniorhynchus* Lynch Arribalzaga
   Side-piece without lobes.....*Finlaya* Theobald
3. A hairy or spinose lobe at base of side-piece.....4
   Without this structure; basal membrane expanded or modified,
   *Stegomyia* Theobald
4. Lobe at base of side-piece complex; clasper modified, furcate and with a basal branch.....*Aëdes* Meigen
   This lobe simple; clasper without basal branch, though sometimes modified at apex.....*Ecculex* Felt

The subgenus *Heteronycha* (for the use of the name see Ins. Ins. Mens., vii, 88, 1919) may be considered to include groups iv and v of my former paper, as I think *canadensis,* the only species in Group V, should not properly be separated as a subgenus. So taken, the subgenus may be divided into groups, still using the characters of the male hypopygium.

The present arrangement is new, replacing that of the former table (Ins. Ins. Mens., vi, 75, 1918), although based on the same principle. I give the groups the names of the oldest American species. The north European species belong to the same groups, and their names will generally be older than ours, so that when the faunæ are combined, these will prevail; but I have not yet had the opportunity to compare that fauna exhaustively, besides which the synonymy of the European forms has not been settled on the present basis of specific subdivision.

TABLE OF GROUPS OF HETERONYCHA

1. Basal lobes modified, obsolete as such, but leaving a large spine on one side and two approximate setæ on the other, the latter sometimes obsolete.....Group *pullatus*
   Basal lobes more or less developed.....2
2. Basal lobe elongate, semidetached, the setiferous part separated from the spine.....Group *serratus*
   Basal lobe sessile, the setæ not apart from the spine, or spine wanting .....3
3. Basal lobe more or less expanded and tubercular, with or without a spine.....4
   Basal lobe uniformly long-haired; no spine.....8
4. Basal lobe expanded, with many setæ, but without a single differentiated long spine; if the marginal spines are thickened, more than one is involved.....Group *currici*
   Basal lobe with a single differentiated spine, or if absent, the lobe is flat and rugose.....5
5. Apical lobe with short, flat, clinging setæ.....Group *punctor*
   Apical lobe with the setæ normal, or slightly thickened.....6
6. Setæ on apical lobe more or less well-developed; filament of claspette without retrose spine.....7
   Setæ on apical lobe practically absent; filament of claspette with retrose spine.....Group *scapularis*
7. Setæ on apical lobe more or less distinctly outwardly directed when the lobe is retracted, not functioning as organs of prehension, tending to obsolescence.....Group *impiger*[1]
   Setæ on apical lobe inwardly directed, often distinctly functional, though occasionally obsolescent.....Group *stimulans*

[1] Using *impiger* in the sense of *decticus*.

8. Apical lobe with short, curved, clinging setæ, not flat,
Group *thibaulti*

Setæ on apical lobe normal.....9

9. Setæ on apical lobe long, more or less outwardly directed,
Group *trichurus*

Setæ on apical lobe very short and few, inwardly directed,
Group *innuitus*

The described species are assigned to the groups as follows:

Group *serratus*

*dupreei* Coq.
*tormentor* D. & K.
*eucephalaeus* Dyar
*oligopistus* Dyar
*hortator* D. & K.
*fulvus* Wied.
*atlanticus* D. & K.
*serratus* Theob.
*nubilus* Theob. (♂*polyagrus* Dyar)
*pertinax* Grabham
*mathisi* Nev.-Lem.[1]
*bimaculatus* Coq.

Group *scapularis.*

*trivittatus* Coq.
*bilineatus* Theob.[1]
*infirmatus* D. & K.
*euplocamus* D. & K.
*condolescens* D. & K.[1]
*plutocraticus* D. & K.
*balteatus* D. & K.[1]
*dolosa* Arrib. (*lynchii* Brethes)[1]
*angustivittatus* D. & K.[1]
*cuneatus* D. & K. (*argentescens* D. & K.)
*obturbator* D. & K.[1]
*scapularis* Rond. (*camposanus* Dyar)
*bracteatus* Coq.[1]
*tortilis* Theob.
*crinifer* Theob.

Group *pullatus*

*intrudens* Dyar
*pullatus* Coq.
*muelleri* Dyar
*diantaeus* H., D. & K.
*aurifer* Coq.

Group *punctor*

*spencerii* Theob.
*aldrichi* D. & K.
*aestivalis* Dyar
*punctor* Kirby
*cyclocerculus* Dyar
*hexodontus* Dyar
*idahoensis* Theob.
*hirsuteron* Theob.
*vinnipegensis* Dyar[1]
*aboriginis* Dyar
*leuconotips* Dyar
*fisheri* Dyar

Group *impiger (decticus)*

*lazarensis* F. & Y.
*pianips Dyar*
*niphadopsis* D. & K.
*tahoensis* Dyar
*altiusculus* Dyar
*impiger* Walk. (*decticus* H. D. & K.)

[1] Male unexamined and position of species not verified.

| | |
|---|---|
| *prodotes* Dyar | *cataphylla* Dyar |
| Group *curriei* | |
| *campestris* D. & K. | *callithotrys* Dyar |
| *curriei* Coq. | *canadensis* Theob. |
| *albifasciatus* Macq. | |
| Group *stimulans* | |
| *excrucians* Walk. | *aloponotum* Dyar[1] |
| *mutatus* Dyar | *increpitus* Dyar |
| *fletcheri* Coq. | *stimulans* Walk. |
| *mercurator* Dyar | *cantator* Coq. |
| *fitchii* F. & Y. | *mimesis* Dyar |
| *palustris* Dyar | *riparius* D. & K. |
| *grossbecki* D. & K. | *squamiger* Coq. |
| Group *thibaulti* | |
| *thibaulti* D. & K. | |
| Group *trichurus* | |
| *trichurus* Dyar | *cinereoborealis* F. & Y |
| *poliochros* Dyar[1] | |
| Group *innuitus* | |
| *innuitus* D. & K. | *nearcticus* Dyar |

[1] Male unexamined and position of species not verified.

It is intended to treat of these groups separately as opportunity serves.

## THE AMERICAN AEDES OF THE STIMULANS GROUP

*(Diptera, Culicidæ)*

By HARRISON G. DYAR

The species of this group inhabit temperate North America, Europe, and Asia. As far as this holarctic region is concerned, they may be defined as *Aëdes* of the subgenus *Heteronycha* with white rings at the bases (only) of the tarsal joints. This marking is repeated in other subgenera of *Aëdes* and in *Heteronycha* also in Australia; but for the region in question it is distinctive.

The species are not separable in all cases on the coloration of the female adults; but the male hypopygium is character-